



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE
1000 RIO BRAZOS ROAD
AZTEC NM 87410
(505) 334-6178 FAX: (505) 334-6170
[http://emnr.state.nm.us/ocd/District III/3district.htm](http://emnr.state.nm.us/ocd/District%20III/3district.htm)

OIL CONS. DIV DIST. 3

APR 17 2014

BRADENHEAD TEST REPORT

(submit 1 copy to above address)

Date of Test 3/19/2014 Operator Energen Resources API #30-0 3926575

Property Name Jicarilla 152W Well No. 2M Location: Unit J Section 5 Township 26 Range 5

Well Status (Shut-In or Producing) Initial PSI: Tubing 53 Intermediate N/A Casing 58 Bradenhead 58

OPEN BRADENHEAD AND INTERMEDIATE TO ATMOSPHERE INDIVIDUALLY FOR 15 MINUTES EACH

Testing	PRESSURE			INTERM	
	BH	Bradenhead Int	Csg	Int	Csg
TIME					
5 min	58		58		
10 min	57		57		
15 min	56		56		
20 min	56		56		
25 min	56		56		
30 min	56		56		

FLOW CHARACTERISTICS	
BRADENHEAD	INTERMEDIATE
Steady Flow <u>X</u>	
Surges	
Down to Nothing	
Nothing	
Gas <u>X</u>	
Gas & Water	
Water	

If bradenhead flowed water, check all of the descriptions that apply below:

CLEAR _____ FRESH _____ SALTY _____ SULFUR _____ BLACK _____

5 MINUTE SHUT-IN PRESSURE BRADENHEAD 58 INTERMEDIATE _____

REMARKS:

GAS SAMPLES ALL TAKEN AT THE WELL HEAD. VENTED THE BRADENHEAD TO
ATMOSPHERE THROUGH A 1/4" PORT DURING THE TEST.

By MICHAEL L DEAN

Witness _____

PRODUCTION FOREMAN
(Position)

E-mail address _____



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: EN140210
Cust No: 73500-14470

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: JICARILLA 152 WEST #2M BHD
County/State: RIO ARRIBA
Location:
Field:
Formation: DK/MV/PC
Cust. Stn. No.: 82949011

Source: BRADENHEAD
Pressure: 58 PSIA
Sample Temp: 20 DEG. F
Well Flowing: Y
Date Sampled: 03/19/2014
Sampled By: JASON PEACE
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.653	0.0720	0.00	0.0063
CO2	0.069	0.0120	0.00	0.0010
Methane	87.108	14.8080	879.79	0.4825
Ethane	6.258	1.6780	110.75	0.0650
Propane	3.302	0.9120	83.08	0.0503
Iso-Butane	0.652	0.2140	21.20	0.0131
N-Butane	0.875	0.2770	28.55	0.0176
I-Pentane	0.314	0.1150	12.56	0.0078
N-Pentane	0.220	0.0800	8.82	0.0055
Hexane Plus	0.549	0.2460	28.94	0.0182
Total	100.000	18.4140	1173.69	0.6672

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003

BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1179.9

BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1159.4

REAL SPECIFIC GRAVITY: 0.669

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1173.5

DRY BTU @ 14.696: 1177.2

DRY BTU @ 14.730: 1179.9

DRY BTU @ 15.025: 1203.5

CYLINDER #: 4193

CYLINDER PRESSURE: 63 PSIG

DATE RUN: 4/2/14 12:00 AM

ANALYSIS RUN BY: PATRICIA KING



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: JICARILLA 152 WEST #2M BHD
Stn. No.: 82949011
Mtr. No.:

BRADENHEAD
DK/MV/PC

04/07/2014
73500-14470

Smpl Date: 03/19/2014
Test Date: 04/02/2014
Run No: EN140210

Nitrogen: 0.653
CO2: 0.069
Methane: 87.108
Ethane: 6.258
Propane: 3.302
I-Butane: 0.652
N-Butane: 0.875
I-Pentane: 0.314
N-Pentane: 0.220
Hexane+: 0.549

BTU: 1179.9
GPM: 18.4140
SPG: 0.6690



63#

☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

2030 Afton Place, Farmington, NM 87401 • 505/325-6622

Company Emergen Resources

Pressure (PSIG) 58 PSI

Well Name Jic 152 West #2m

Sample Temp (Deg. F) 110 ~~110~~ Temp 20°

Location/Source Bradenhead

Well Flowing ☒ Yes ☐ No

Lease/County Rio Arriba

Date Sampled 3-19-14

Formation DK / MV / PC

Sampled By Jason Pence

Meter No 82 949011

Cylinder No. 4193

Contact Michael L Dean 330-0742

Remarks Bradenhead Test



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: EN140211
Cust No: 73500-14475

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: JICARILLA 152 WEST 2M CSG
County/State: RIO ARRIBA
Location:
Field:
Formation: DK/MV/PC
Cust. Stn. No.: 82949011

Source: CASING
Pressure: 58 PSIA
Sample Temp: 20 DEG. F
Well Flowing: Y
Date Sampled: 03/19/2014
Sampled By: JASON PEACE
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.674	0.0740	0.00	0.0065
CO2	0.063	0.0110	0.00	0.0010
Methane	87.046	14.7970	879.16	0.4821
Ethane	6.275	1.6830	111.05	0.0651
Propane	3.323	0.9180	83.61	0.0506
Iso-Butane	0.650	0.2130	21.14	0.0130
N-Butane	0.875	0.2770	28.55	0.0176
I-Pentane	0.310	0.1140	12.40	0.0077
N-Pentane	0.215	0.0780	8.62	0.0054
Hexane Plus	0.569	0.2540	29.99	0.0188
Total	100.000	18.4190	1174.52	0.6679

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.003
BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1180.8
BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1160.3
REAL SPECIFIC GRAVITY: 0.6696

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1174.4
DRY BTU @ 14.696: 1178.1
DRY BTU @ 14.730: 1180.8
DRY BTU @ 15.025: 1204.4

CYLINDER #: 6146
CYLINDER PRESSURE: 64 PSIG
DATE RUN: 4/2/14 12:00 AM
ANALYSIS RUN BY: LOGAN CHENEY



ENERGEN RESOURCES CORP.

WELL ANALYSIS COMPARISON

Lease: JICARILLA 152 WEST 2M CSG
Stn. No.: 82949011
Mtr. No.:

CASING
DK/MV/PC

04/07/2014
73500-14475

Smpl Date: 03/19/2014
Test Date: 04/02/2014
Run No: EN140211

Nitrogen: 0.674
CO2: 0.063
Methane: 87.046
Ethane: 6.275
Propane: 3.323
I-Butane: 0.650
N-Butane: 0.875
I-Pentane: 0.310
N-Pentane: 0.215
Hexane+: 0.569

BTU: 1180.8
GPM: 18.4190
SPG: 0.6696



64#

☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

2030 Afton Place, Farmington, NM 87401 • 505/325-6622

Company ENERGEN RESOURCES

Pressure (PSIG) 58 PSI

Well Name JIL 152 WEST 2 M

Sample Temp (Deg. F) Amb. Temp 20°

Location/Source CASING

Well Flowing ☒ Yes ☐ No

Lease/County RIO ARriba

Date Sampled 3-19-14

Formation DK / MU / PC

Sampled By JASON PEACE

Meter No 02949011

Cylinder No. L6146

Contact MICHAEL L DEAN 330-0342

Remarks BRADENHEAD TEST



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: EN140212
Cust No: 73500-14480

Well/Lease Information

Customer Name: ENERGEN RESOURCES CORP.
Well Name: JICARILLA WEST 152 2M TBG
County/State: RIO ARRIBA
Location:
Field:
Formation: DK/MV/PC
Cust. Stn. No.: 8294011

Source: TUBING
Pressure: 53 PSIG
Sample Temp: 20 DEG. F
Well Flowing: Y
Date Sampled: 03/19/2014
Sampled By: JASON PEACE
Foreman/Engr.: MICHAEL DEAN

Remarks:

Analysis

Component::	Mole%:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.444	0.0490	0.00	0.0043
CO2	0.977	0.1670	0.00	0.0148
Methane	82.324	14.0040	831.47	0.4560
Ethane	7.696	2.0650	136.20	0.0799
Propane	4.055	1.1210	102.03	0.0617
Iso-Butane	0.795	0.2610	25.85	0.0160
N-Butane	1.235	0.3910	40.29	0.0248
I-Pentane	0.523	0.1920	20.92	0.0130
N-Pentane	0.406	0.1480	16.28	0.0101
Hexane Plus	1.545	0.6910	81.44	0.0511
Total	100.000	19.0890	1254.48	0.7318

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0037

BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 1262.1

BTU/CU.FT (WET) CORRECTED FOR (1/Z): 1240.1

REAL SPECIFIC GRAVITY: 0.7342

GPM, BTU, and SPG calculations as shown
above are based on current GPA factors.

DRY BTU @ 14.650: 1255.2

DRY BTU @ 14.696: 1259.2

DRY BTU @ 14.730: 1262.1

DRY BTU @ 15.025: 1287.4

CYLINDER #: 7030

CYLINDER PRESSURE: 53 PSIG

DATE RUN: 4/2/14 12:00 AM

ANALYSIS RUN BY: PATRICIA KING



ENERGEN RESOURCES CORP.
WELL ANALYSIS COMPARISON

Lease: JICARILLA WEST 152 2M TBG
Stn. No.: 8294011
Mtr. No.:

TUBING
DK/MV/PC

04/07/2014
73500-14480

Smpl Date: 03/19/2014
Test Date: 04/02/2014
Run No: EN140212

Nitrogen: 0.444
CO2: 0.977
Methane: 82.324
Ethane: 7.696
Propane: 4.055
I-Butane: 0.795
N-Butane: 1.235
I-Pentane: 0.523
N-Pentane: 0.406
Hexane+: 1.545

BTU: 1262.1
GPM: 19.0890
SPG: 0.7342



☐ Helium ☐ Hydrogen ☐ Oxygen
☐ C6+ ☐ C9+ ☐ BTEX

2030 Afton Place, Farmington, NM 87401 • 505/325-6622

Company ENERGEN RESOURCES

Pressure (PSIG) 53

Well Name JIC WEST 152 2 M

Sample Temp (Deg. F) Amb, T₄ 20°

Location/Source TUBING

Well Flowing ☒ Yes ☐ No

Lease/County TRIO ARRIBA

Date Sampled 3-19-14

Formation DK/MV/PC

Sampled By JASON PACE

Meter No. BZ94011

Cylinder No. 7030

Contact MICHAEL L DEAN 330-0342

Remarks BRADENHEAD TEST

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS

MAR 21 2014

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

Field Office
Bureau of Land Management

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

ENERGEN RESOURCES CORPORATION

3a. Address

2010 Afton Place, Farmington, NM 87401

3b. Phone No. (include area code)

505-325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1850' FSL, 1845' FEL, Sec.05, T26N, R05W, N.M.P.M.

5. Lease Serial No.

Jicarilla Contract 152

6. If Indian, Allottee or Tribe Name

Jicarilla Apache

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.

Jicarilla 152W # 2M

9. API Well No.

30-039-26575

10. Field and Pool, or Exploratory Area

Blanco Mesaverde
Basin Dakota

11. County or Parish, State

Rio Arriba NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

☒ Notice of Intent

☐ Subsequent Report

☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize

☐ Alter Casing

☐ Casing Repair

☐ Change Plans

☐ Convert to Injection

☐ Deepen

☐ Fracture Treat

☐ New Construction

☐ Plug and Abandon

☐ Plug Back

☐ Production (Start/Resume)

☐ Reclamation

☐ Recomplete

☐ Temporarily Abandon

☐ Water Disposal

☐ Water Shut-Off

☒ Well Integrity

☐ Other

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

The Jicarilla 152W #2M failed a bradenhead test on 3/19/2014. Energen Resources intends to investigate the cause of the failure and determine whether to make repairs and return to production or permanently plug and abandon the well.

RCUD MAR 26 '14
OIL CONS. DIV.
DIST. 3

14. I hereby certify that the foregoing is true and correct

Name (Printed/Typed)

Collin Placke

Title District Engineer

Signature

Collin Placke

Date 3/21/14

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Original Signed: Stephen Mason

Title

Date MAR 24 2014

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOC D A